

SEQUENCE LISTING

<110> Samuel M. Owens
 Frank I. Carroll
 Philip Abraham
 Melinda G. Gunnell
 Mary Haak-Frendscho
 Xiao Feng

<120> ANTIBODIES AGAINST DRUGS OF ABUSE

<130> ABGENIX.071A

<140> Unknown

<141> 2003-12-03

<150> 60/430717

<151> 2002-12-02

<160> 141

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 131

<212> PRT

<213> Mus musculus

<220>

<221> VARIANT

<222> 101, 102, 103, 109, 110, 111

<223> Xaa = Any Amino Acid

<400> 1

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Asn	Ala
			20					25					30		
Trp	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35				40						45			
Gly	Arg	Ile	Lys	Ser	Lys	Thr	Asp	Gly	Gly	Thr	Thr	Asp	Tyr	Ala	Ala
	50				55					60					
Pro	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr
65					70				75					80	
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Lys	Thr	Glu	Asp	Thr	Ala	Val	Tyr
			85					90						95	
Tyr	Cys	Thr	Thr	Xaa	Xaa	Xaa	Cys	Ser	Gly	Gly	Ser	Xaa	Xaa	Xaa	Tyr
			100				105					110			
Tyr	Tyr	Tyr	Gly	Met	Asp	Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val
		115					120					125			
Ser	Ser	Ala													
		130													

<210> 2

<211> 131
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 <213> Mus musculus

<400> 2
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asn Ala
 20 25 30
 Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Gly Arg Ile Lys Ser Lys Ile Asp Gly Gly Thr Thr Asp Tyr Ala Ala
 50 55 60
 Pro Val Lys Gly Arg Phe Thr Met Ser Arg Asp Asp Ser Lys Asn Thr
 65 70 75 80
 Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
 85 90 95
 Tyr Cys Thr Thr Asp Glu Asp Cys Ser Gly Gly Ser Cys Phe Phe Tyr
 100 105 110
 His Tyr Tyr Leu Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val
 115 120 125
 Ser Ser Ala
 130

<210> 3
 <211> 128
 <212> PRT
 <213> Mus musculus

<220>
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 <222> 99, 100, 112
 <223> Xaa = Any Amino Acid

<400> 3
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Xaa Xaa Tyr Asp Tyr Val Trp Gly Ser Tyr Arg Tyr Thr Xaa
 100 105 110
 Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala
 115 120 125

<210> 4
 <211> 128
 <212> PRT

<213> Mus musculus

<400> 4

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Ser	Phe	Ile	Asn	Tyr
			20						25					30	
Gly	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40						45		
Ala	Val	Ile	Trp	Asn	Asp	Gly	Arg	Ser	Lys	Tyr	Tyr	Ala	Asp	Ser	Val
		50					55					60			
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Gly
65					70					75					80
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	
Ala	Arg	Glu	Asp	Tyr	Asp	Tyr	Ile	Trp	Glu	Ser	Phe	Pro	Tyr	Thr	Gly
			100					105					110		
Ala	Phe	Asp	Ile	Trp	Gly	Gln	Gly	Thr	Met	Val	Thr	Val	Ser	Ser	Ala
		115					120						125		

<210> 5

<211> 128

<212> PRT

<213> Mus musculus

<400> 5

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Ser	Tyr
			20						25					30	
Gly	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40						45		
Ala	Val	Ile	Trp	Asn	Asp	Gly	Ser	Tyr	Lys	Tyr	Tyr	Ala	Asp	Ser	Val
		50					55					60			
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr
65					70					75					80
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	
Val	Arg	Glu	Asp	Tyr	Asp	Tyr	Asp	Trp	Met	Ile	Asp	Arg	Tyr	Thr	Gly
			100					105					110		
Ala	Phe	Asp	Leu	Trp	Gly	Gln	Gly	Thr	Met	Val	Thr	Val	Ser	Ser	Ala
		115					120						125		

<210> 6

<211> 127

<212> PRT

<213> Mus musculus

<220>

<221> VARIANT

<222> 97, 98, 99, 106, 107

<223> Xaa = Any Amino Acid

<400> 6

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly

1	5	10	15
Ser Leu Arg	Leu Ser Cys Ala Ala	Ser Gly Phe Thr Phe	Ser Ser Tyr
20	25	30	
Ala Met Ser	Trp Val Arg Gln Ala	Pro Gly Lys Gly	Leu Glu Trp Val
35	40	45	
Ser Ala Ile	Ser Gly Ser Gly Gly	Ser Thr Tyr Tyr	Ala Asp Ser Val
50	55	60	
Lys Gly Arg	Phe Thr Ile Ser Arg	Asp Asn Ser Lys	Asn Thr Leu Tyr
65	70	75	80
Leu Gln Met	Asn Ser Leu Arg Ala	Glu Asp Thr Ala	Val Tyr Tyr Cys
85	90	95	
Xaa Xaa Xaa	Val Asp Ile Val Ala	Thr Xaa Xaa Tyr	Tyr Tyr Tyr Gly
100	105	110	
Met Asp Val	Trp Gly Gln Gly Thr	Thr Val Thr Val	Ser Ser Ala
115	120	125	

<210> 7
 <211> 127
 <212> PRT
 <213> Mus musculus

<220>
 <221> VARIANT
 <222> 97, 98
 <223> Xaa = Any Amino Acid

<400> 7
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Val Ile Ser Gly Ser Gly Gly Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60
Arg Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Xaa Xaa His Val Asp Ile Val Ala Thr Met Ala Tyr Phe Asp Tyr Val
100 105 110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala
115 120 125

<210> 8
 <211> 126
 <212> PRT
 <213> Mus musculus

<220>
 <221> VARIANT
 <222> 101, 112
 <223> Xaa = Any Amino Acid

<400> 8

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Asn	Ala
			20					25					30		
Trp	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Gly	Arg	Ile	Lys	Ser	Lys	Thr	Asp	Gly	Gly	Thr	Thr	Asp	Tyr	Ala	Ala
	50					55					60				
Pro	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr
65					70					75				80	
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Lys	Thr	Glu	Asp	Thr	Ala	Val	Tyr
				85					90					95	
Tyr	Cys	Thr	Thr	Xaa	Met	Ile	Thr	Phe	Gly	Gly	Val	Ile	Val	Ile	Xaa
			100					105					110		
Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala		
		115					120					125			

<210> 9
 <211> 126
 <212> PRT
 <213> Mus musculus

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Asn	Ala
			20					25					30		
Trp	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Gly	Arg	Ile	Lys	Ser	Lys	Thr	Asp	Gly	Gly	Thr	Thr	Asp	Tyr	Ala	Ala
	50					55					60				
Pro	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr
65					70					75				80	
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Lys	Thr	Glu	Asp	Thr	Ala	Val	Tyr
				85					90					95	
Tyr	Cys	Thr	Thr	Glu	Met	Ile	Thr	Phe	Gly	Gly	Val	Ile	Val	Ile	Pro
			100					105					110		
Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala		
		115					120					125			

<210> 10
 <211> 126
 <212> PRT
 <213> Mus musculus

<220>
 <221> VARIANT
 <222> 101
 <223> Xaa = Any Amino Acid

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Asn	Ala
			20					25					30		

Leu	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
	35						40					45			
Gly	Arg	Ile	Lys	Ser	Lys	Thr	Asp	Gly	Gly	Thr	Ile	Asp	Tyr	Ala	Ala
	50					55					60				
Pro	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr
	65				70					75					80
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Lys	Thr	Glu	Asp	Thr	Ala	Val	Tyr
			85						90					95	
Tyr	Cys	Thr	Thr	Xaa	Met	Ile	Thr	Phe	Gly	Gly	Val	Ile	Val	Ile	Pro
			100					105					110		
Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala		
		115					120						125		

<210> 11
 <211> 126
 <212> PRT
 <213> Mus musculus

<220>
 <221> VARIANT
 <222> 112
 <223> Xaa = Any Amino Acid

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Asn	Ala
			20					25					30		
Trp	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35				40						45			
Gly	Arg	Ile	Lys	Ser	Lys	Thr	Asp	Gly	Gly	Thr	Ile	Asp	Tyr	Val	Ala
	50					55					60				
Pro	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr
	65				70					75					80
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Lys	Thr	Glu	Asp	Thr	Ala	Val	Tyr
			85						90					95	
Tyr	Cys	Thr	Thr	Glu	Val	Ile	Thr	Phe	Gly	Gly	Ile	Ile	Val	Asp	Xaa
			100					105					110		
Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala		
		115					120						125		

<210> 12
 <211> 124
 <212> PRT
 <213> Mus musculus

<220>
 <221> VARIANT
 <222> 99, 100, 106, 107, 108
 <223> Xaa = Any Amino Acid

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Ser	Tyr

Ala	Arg	Asp	Gly	Gly	Ile	Ala	Val	Ala	Asp	Pro	Tyr	Tyr	Phe	Asp	Tyr
			100					105					110		
Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala				
		115					120								

<210> 15
 <211> 124
 <212> PRT
 <213> Mus musculus

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Asn	Thr	Tyr
			20					25					30		
Val	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ala	Val	Ile	Trp	Tyr	Asp	Gly	Ser	Asn	Lys	Lys	Tyr	Ala	Asp	Ser	Val
	50					55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Ala	Asn	Ser	Lys	Asn	Thr	Leu	Tyr
65					70					75				80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85						90					95	
Ala	Arg	Asp	Gly	Gly	Arg	Thr	Val	Ala	Asp	Pro	Tyr	Tyr	Phe	Asp	Tyr
			100					105					110		
Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala				
		115					120								

<210> 16
 <211> 124
 <212> PRT
 <213> Mus musculus

Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
1				5					10					15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Asn	Thr	Tyr
			20					25					30		
Val	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ala	Val	Ile	Trp	Tyr	Asp	Gly	Ser	Asn	Lys	Lys	Tyr	Ala	Asp	Ser	Val
	50					55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Ala	Asn	Ser	Lys	Asn	Thr	Leu	Tyr
65					70					75				80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85						90					95	
Ala	Arg	Asp	Gly	Gly	Arg	Thr	Val	Ala	Asp	Pro	Tyr	Tyr	Phe	Asp	Tyr
			100					105					110		
Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala				
		115					120								

<210> 17
 <211> 125
 <212> PRT

<213> Mus musculus

<220>

<221> VARIANT

<222> 98, 99, 100, 101, 102, 104, 105

<223> Xaa = Any Amino Acid

<400> 17

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly		
1				5					10					15			
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Ser	Tyr		
			20					25					30				
Ser	Met	Asn	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val		
		35					40					45					
Ser	Ser	Ile	Ser	Ser	Ser	Ser	Ser	Tyr	Ile	Tyr	Tyr	Ala	Asp	Ser	Val		
	50					55					60						
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	Ser	Leu	Tyr		
65					70				75					80			
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys		
			85						90					95			
Ala	Xaa	Xaa	Xaa	Xaa	Xaa	Gly	Xaa	Xaa	Tyr	Tyr	Tyr	Tyr	Gly	Met	Asp		
			100					105					110				
Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser	Ala					
		115					120					125					

<210> 18

<211> 125

<212> PRT

<213> Mus musculus

<220>

<221> VARIANT

<222> 98

<223> Xaa = Any Amino Acid

<400> 18

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly		
1				5					10					15			
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Ser	Tyr		
			20					25					30				
Thr	Met	Asn	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val		
		35					40					45					
Ser	Ser	Ile	Ser	Ser	Ser	Ser	Ser	Tyr	Ile	Tyr	Tyr	Ala	Asp	Ser	Val		
	50					55					60						
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	Ser	Leu	Tyr		
65					70				75					80			
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys		
			85						90					95			
Ala	Xaa	Asp	Gly	Gly	Ile	Gly	Phe	Tyr	Tyr	Tyr	Tyr	Tyr	Gly	Met	Asp		
			100					105					110				
Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser	Ala					
		115					120					125					

<210> 19

<211> 125

<212> PRT
 <213> Mus musculus

<220>
 <221> VARIANT
 <222> 98, 101, 102, 104
 <223> Xaa = Any Amino Acid

<400> 19
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Cys Met Asn Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Ser Ile Ser Ser Ser Ser Tyr Tyr Ile Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Xaa Asp Ile Xaa Xaa Gly Xaa Gly Asp Tyr Tyr Gly Met Asp
 100 105 110
 Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala
 115 120 125

<210> 20
 <211> 126
 <212> PRT
 <213> Mus musculus

<220>
 <221> VARIANT
 <222> 99, 100, 101, 102, 103, 104, 105
 <223> Xaa = Any Amino Acid

<400> 20
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Lys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr Tyr Tyr Tyr Tyr Gly Met
 100 105 110
 Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala
 115 120 125

<210> 21

<211> 126
 <212> PRT
 <213> Mus musculus

<400> 21
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Ser Ile Ser Gly Ser Gly Ala Tyr Thr Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Lys Asp Leu Gly Glu Asp Glu Asp Tyr Tyr Asp Tyr Tyr Gly Val
 100 105 110
 Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala
 115 120 125

<210> 22
 <211> 113
 <212> PRT
 <213> Mus musculus

<220>
 <221> VARIANT
 <222> 100, 101, 102
 <223> Xaa = Any Amino Acid

<400> 22
 Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
 1 5 10 15
 Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
 20 25 30
 Asp Gly Asn Thr Tyr Leu Ser Trp Leu Gln Gln Arg Pro Gly Gln Pro
 35 40 45
 Pro Arg Leu Leu Ile Tyr Lys Ile Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
 85 90 95
 Thr Gln Phe Xaa Xaa Xaa Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
 100 105 110
 Arg

<210> 23
 <211> 113
 <212> PRT
 <213> Mus musculus

<400> 23

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Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
 1           5           10           15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Asn
          20           25           30
Asp Gly Asn Thr Tyr Leu Ser Trp Leu Gln Gln Arg Pro Gly Gln Pro
          35           40           45
Pro Arg Leu Leu Ile Tyr Lys Ile Ser Tyr Arg Phe Ser Gly Val Pro
          50           55           60
Asp Arg Phe Thr Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
65           70           75           80
Ser Arg Val Glu Pro Glu Asp Val Gly Ile Tyr Tyr Cys Ile Gln Thr
          85           90           95
Thr Gln Phe Pro Cys Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
          100          105          110
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Arg

<210> 24

<211> 113

<212> PRT

<213> Mus musculus

<400> 24

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Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1           5           10           15
Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu His Ser
          20           25           30
Asp Gly Lys Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Pro
          35           40           45
Pro Gln Leu Leu Ile Tyr Glu Val Ser Asn Arg Phe Ser Gly Val Pro
          50           55           60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65           70           75           80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ser
          85           90           95
Ile Gln Leu Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
          100          105          110
```

Arg

<210> 25

<211> 113

<212> PRT

<213> Mus musculus

<400> 25

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Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1           5           10           15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
          20           25           30
Asp Gly Glu Thr Cys Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Pro
          35           40           45
Pro Gln Leu Leu Ile Tyr Glu Val Ser Asn Arg Phe Ser Gly Val Pro
          50           55           60
```

Tyr Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ser
 85 90 95
 Ile Gln Leu Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
 100 105 110
 Arg

<210> 26
 <211> 113
 <212> PRT
 <213> Mus musculus

<400> 26
 Asp Ile Val Leu Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1 5 10 15
 Gln Pro Ala Ser Ile Ser Cys Arg Ser Thr Gln Ser Leu Leu His Ser
 20 25 30
 Asp Gly Glu Thr Cys Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Pro
 35 40 45
 Pro Gln Leu Leu Ile Tyr Glu Val Ser Tyr Gln Phe Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ser
 85 90 95
 Ile Gln Arg Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
 100 105 110
 Arg

<210> 27
 <211> 109
 <212> PRT
 <213> Mus musculus

<400> 27
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
 20 25 30
 Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
 35 40 45
 Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
 50 55 60
 Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
 65 70 75 80
 Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
 85 90 95
 Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
 100 105

<210> 28

<211> 109
 <212> PRT
 <213> Mus musculus

<400> 28
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15
 Glu Arg Ala Ser Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
 20 25 30
 Tyr Leu Ala Trp Tyr Gln His Lys Pro Gly Gln Ala Pro Arg Leu Leu
 35 40 45
 Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
 50 55 60
 Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
 65 70 75 80
 Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
 85 90 95
 Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Val Lys Arg
 100 105

<210> 29
 <211> 112
 <212> PRT
 <213> Mus musculus

<220>
 <221> VARIANT
 <222> 101
 <223> Xaa = Any Amino Acid

<400> 29
 Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15
 Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
 20 25 30
 Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45
 Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
 85 90 95
 Leu Gln Thr Pro Xaa Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
 100 105 110

<210> 30
 <211> 112
 <212> PRT
 <213> Mus musculus

<220>
 <221> VARIANT
 <222> 101
 <223> Xaa = Any Amino Acid

<400> 30

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly
1				5					10					15	
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Leu	Leu	His	Arg
			20					25					30		
Asn	Gly	Tyr	Asn	Tyr	Leu	Glu	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser
		35					40					45			
Pro	Gln	Leu	Leu	Ile	Tyr	Leu	Gly	Ser	Asn	Arg	Ala	Ser	Gly	Val	Pro
	50					55					60				
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Phe	Tyr	Tyr	Cys	Met	Gln	Ala
				85					90					95	
Leu	Gln	Thr	Pro	Xaa	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg
			100					105						110	

<210> 31

<211> 113

<212> PRT

<213> Mus musculus

<220>

<221> VARIANT

<222> 100, 101

<223> Xaa = Any Amino Acid

<400> 31

Asp	Ile	Val	Met	Thr	Gln	Thr	Pro	Leu	Ser	Leu	Ser	Val	Thr	Pro	Gly
1				5					10					15	
Gln	Pro	Ala	Ser	Ile	Ser	Cys	Lys	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser
			20					25					30		
Asp	Gly	Lys	Thr	Tyr	Leu	Tyr	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Pro
		35					40					45			
Pro	Gln	Leu	Leu	Ile	Tyr	Glu	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro
	50					55					60				
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Ser
				85					90					95	
Ile	Gln	Leu	Xaa	Xaa	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys
			100					105						110	

Arg

<210> 32

<211> 113

<212> PRT

<213> Mus musculus

<400> 32

Asp	Ile	Val	Met	Thr	Gln	Thr	Pro	Leu	Ser	Leu	Thr	Val	Thr	Pro	Gly
1				5					10					15	
Gln	Pro	Ala	Ser	Ile	Ser	Cys	Lys	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser
			20					25					30		

Asp	Gly	Lys	Thr	Tyr	Leu	Tyr	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Pro
		35					40				45				
Pro	Gln	Phe	Leu	Ile	Tyr	Glu	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro
	50					55				60					
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Ala	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Ser
				85					90					95	
Ile	Gln	Phe	Pro	Leu	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys
			100					105					110		

Arg

<210> 33
 <211> 113
 <212> PRT
 <213> Mus musculus

<400> 33

Asp	Ile	Val	Met	Thr	Gln	Thr	Pro	Leu	Ser	Leu	Ser	Val	Thr	Pro	Gly
1				5					10					15	
Gln	Pro	Ala	Ser	Ile	Ser	Cys	Lys	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser
			20					25					30		
Asp	Gly	Lys	Thr	Tyr	Leu	Tyr	Trp	Tyr	Leu	Gln	Arg	Pro	Gly	Gln	Pro
		35					40					45			
Pro	Gln	Phe	Leu	Ile	Tyr	Glu	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro
	50					55				60					
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Ile	Tyr	Tyr	Cys	Met	Gln	Ser
				85					90					95	
Ile	Gln	Leu	Pro	Leu	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Leu	Lys
			100					105					110		

Arg

<210> 34
 <211> 113
 <212> PRT
 <213> Mus musculus

<400> 34

Asp	Ile	Val	Met	Thr	Gln	Thr	Pro	Leu	Ser	Leu	Ser	Val	Thr	Pro	Gly
1				5					10					15	
Gln	Pro	Ala	Ser	Ile	Ser	Cys	Lys	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser
			20					25					30		
Asp	Gly	Lys	Thr	Tyr	Leu	Tyr	Trp	Tyr	Leu	Gln	Arg	Pro	Gly	Gln	Pro
		35					40					45			
Pro	Gln	Phe	Leu	Ile	Tyr	Glu	Val	Ser	Asn	Arg	Phe	Ser	Gly	Val	Pro
	50					55				60					
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Ser
				85					90					95	
Ile	Gln	Leu	Pro	Leu	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Val	Lys


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Arg                                100                               105                               110

<210> 35
<211> 113
<212> PRT
<213> Mus musculus

<400> 35
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1          5          10          15
Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu His Ser
      20          25          30
Asp Gly Lys Thr Tyr Leu Tyr Trp Tyr Leu Gln Arg Pro Gly Gln Pro
      35          40          45
Pro Gln Phe Leu Ile Tyr Glu Val Ser Asn Arg Phe Ser Gly Val Pro
      50          55          60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65          70          75          80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ser
      85          90          95
Ile Gln Leu Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Val Lys
      100         105         110
Arg
```

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5				10					15		
Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Thr	Ser	Gln	Gly	Ile	Asn	Asn	Tyr
		20						25				30			
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Val	Pro	Lys	Leu	Leu	Ile
	35						40					45			
Tyr	Ala	Ala	Ser	Thr	Leu	Arg	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
	50					55					60				
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro
65					70					75					80
Glu	Asp	Val	Ala	Thr	Tyr	Tyr	Cys	Gln	Lys	Tyr	Asn	Ser	Ala	Pro	Trp
				85					90					95	
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg				
			100					105							

<210> 38
 <211> 108
 <212> PRT
 <213> Mus musculus

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5				10					15		
Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Gly	Ile	Ser	Asn	Tyr
		20						25				30			
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Val	Pro	Lys	Leu	Leu	Ile
	35						40					45			
Tyr	Ala	Ala	Ser	Thr	Leu	Gln	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
	50					55					60				
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro
65					70					75					80
Glu	Asp	Val	Ala	Thr	Tyr	Tyr	Cys	Gln	Lys	Tyr	Asn	Ser	Ala	Pro	Trp
				85					90					95	
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg				
			100					105							

<210> 39
 <211> 108
 <212> PRT
 <213> Mus musculus

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5				10					15		
Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Gly	Ile	Ser	Asn	Tyr
		20						25				30			
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Val	Pro	Glu	Leu	Leu	Ile
	35						40					45			
Tyr	Ala	Ala	Ser	Thr	Leu	Gln	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
	50					55					60				
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro
65					70					75					80
Glu	Asp	Val	Ala	Thr	Tyr	Tyr	Cys	Gln	Lys	Tyr	Asp	Ser	Ala	Pro	Trp
				85					90					95	
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg				

100

105

<210> 40
 <211> 108
 <212> PRT
 <213> Mus musculus

<400> 40
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
 20 25 30
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Glu Asp Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Asn Ser Ala Pro Phe
 85 90 95
 Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg
 100 105

<210> 41
 <211> 108
 <212> PRT
 <213> Mus musculus

<400> 41
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Asp
 20 25 30
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ile Pro Asn Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Gly Ser Leu Gln Pro
 65 70 75 80
 Glu Asp Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Asn Ser Ala Pro Phe
 85 90 95
 Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg
 100 105

<210> 42
 <211> 112
 <212> PRT
 <213> Mus musculus

<220>
 <221> VARIANT
 <222> 99, 100
 <223> Xaa = Any Amino Acid

<400> 42

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly	
1				5					10					15		
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser	
			20					25					30			
Asn	Gly	Tyr	Asn	Tyr	Leu	Asp	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser	
		35					40					45				
Pro	Gln	Leu	Leu	Ile	Tyr	Leu	Gly	Ser	Asn	Arg	Ala	Ser	Gly	Val	Pro	
	50					55					60					
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile	
65					70					75					80	
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Ala	
				85					90					95		
Leu	Gln	Xaa	Xaa	Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys	Arg	
			100					105						110		

<210> 43

<211> 112

<212> PRT

<213> Mus musculus

<400> 43

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly	
1				5					10					15		
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser	
			20					25					30			
Asn	Gly	Tyr	Asn	Tyr	Leu	Asp	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser	
		35					40					45				
Pro	Gln	Leu	Leu	Ile	Tyr	Leu	Gly	Ser	Asn	Arg	Ala	Ser	Gly	Val	Pro	
	50					55					60					
Asp	Arg	Phe	Ser	Gly	Ser	Glu	Ser	Asp	Thr	Asp	Phe	Thr	Leu	Lys	Ile	
65					70					75					80	
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Ala	
				85					90					95		
Leu	Gln	Ser	Pro	Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys	Arg	
			100					105						110		

<210> 44

<211> 13

<212> DNA

<213> Mus musculus

<400> 44

aagacggggg cat

13

<210> 45

<211> 20

<212> DNA

<213> Mus musculus

<400> 45

gtggatatag tggctacgat

20

<210> 46

<211> 17

<212> DNA
 <213> Mus musculus

 <400> 46
 ggtatagca gtggctg 17

 <210> 47
 <211> 19
 <212> DNA
 <213> Mus musculus

 <400> 47
 attgtagtgg tggtagctg 19

 <210> 48
 <211> 25
 <212> DNA
 <213> Mus musculus

 <400> 48
 tgattacgtt tgggggaatt atcgt 25

 <210> 49
 <211> 35
 <212> DNA
 <213> Mus musculus

 <400> 49
 attatgatta cgattggatg attgacgtt atacc 35

 <210> 50
 <211> 17
 <212> DNA
 <213> Mus musculus

 <400> 50
 gggtagaaca gtggctg 17

 <210> 51
 <211> 32
 <212> DNA
 <213> Mus musculus

 <400> 51
 atgattacgt ttgggggagt taccgttata cc 32

 <210> 52
 <211> 35
 <212> DNA
 <213> Mus musculus

 <400> 52
 attatgatta catttgggag agttttcctt atacc 35

 <210> 53
 <211> 17
 <212> DNA

<213> Mus musculus

<400> 53

gggtagaaca gtggctg

17

<210> 54

<211> 17

<212> DNA

<213> Mus musculus

<400> 54

gggtagaaca gtggctg

17

<210> 55

<211> 33

<212> DNA

<213> Mus musculus

<400> 55

tatgattacg tttgggggag ttatcggtat acc

33

<210> 56

<211> 13

<212> DNA

<213> Mus musculus

<400> 56

cagtggcggg tac

13

<210> 57

<211> 17

<212> DNA

<213> Mus musculus

<400> 57

tctaggtgag gatgagg

17

<210> 58

<211> 10

<212> PRT

<213> Mus musculus

<400> 58

Gly Phe Thr Phe Ser Asn Tyr Ala Met Ser

1

5

10

<210> 59

<211> 10

<212> PRT

<213> Mus musculus

<400> 59

Gly Phe Thr Phe Ser Ser Tyr Ala Met Ser

1

5

10

<210> 60
<211> 10
<212> PRT
<213> Mus musculus

<400> 60
Gly Phe Thr Phe Ser Ser Tyr Gly Met His
1 5 10

<210> 61
<211> 10
<212> PRT
<213> Mus musculus

<400> 61
Gly Phe Thr Phe Asn Asn Ala Trp Met Ser
1 5 10

<210> 62
<211> 10
<212> PRT
<213> Mus musculus

<400> 62
Gly Phe Thr Phe Ser Asn Ala Trp Met Ser
1 5 10

<210> 63
<211> 10
<212> PRT
<213> Mus musculus

<400> 63
Gly Phe Thr Phe Ser Ser Tyr Gly Met His
1 5 10

<210> 64
<211> 10
<212> PRT
<213> Mus musculus

<400> 64
Gly Phe Thr Phe Asn Thr Tyr Val Met His
1 5 10

<210> 65
<211> 10
<212> PRT
<213> Mus musculus

<400> 65
Gly Phe Thr Phe Ser Asn Ala Trp Met Ser

1 5 10

<210> 66
<211> 10
<212> PRT
<213> Mus musculus

<400> 66
Gly Phe Ser Phe Ile Asn Tyr Gly Met His
1 5 10

<210> 67
<211> 10
<212> PRT
<213> Mus musculus

<400> 67
Gly Phe Thr Phe Asn Thr Tyr Val Met His
1 5 10

<210> 68
<211> 10
<212> PRT
<213> Mus musculus

<400> 68
Gly Phe Thr Phe Asn Thr Tyr Val Met His
1 5 10

<210> 69
<211> 10
<212> PRT
<213> Mus musculus

<400> 69
Gly Phe Thr Phe Ser Asn Ala Leu Met Ser
1 5 10

<210> 70
<211> 10
<212> PRT
<213> Mus musculus

<400> 70
Gly Phe Thr Phe Ser Ser Tyr Thr Met Asn
1 5 10

<210> 71
<211> 10
<212> PRT
<213> Mus musculus

<400> 71

Gly Phe Thr Phe Ser Ser Tyr Cys Met Asn
1 5 10

<210> 72

<211> 17

<212> PRT

<213> Mus musculus

<400> 72

Val Ile Ser Gly Ser Gly Gly Asn Thr Tyr Tyr Ala Asp Ser Val Arg
1 5 10 15
Gly

<210> 73

<211> 17

<212> PRT

<213> Mus musculus

<400> 73

Ser Ile Ser Gly Ser Gly Ala Tyr Thr Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 74

<211> 17

<212> PRT

<213> Mus musculus

<400> 74

Val Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 75

<211> 19

<212> PRT

<213> Mus musculus

<400> 75

Arg Ile Lys Ser Lys Ile Asp Gly Gly Thr Thr Asp Tyr Ala Ala Pro
1 5 10 15
Val Lys Gly

<210> 76

<211> 19

<212> PRT

<213> Mus musculus

<400> 76

Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Val Ala Pro
1 5 10 15
Val Lys Gly

<210> 77

<211> 17

<212> PRT

<213> Mus musculus

<400> 77

Val Ile Trp Asn Asp Gly Ser Tyr Lys Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 78

<211> 17

<212> PRT

<213> Mus musculus

<400> 78

Val Ile Trp Tyr Asp Gly Ser Asn Lys Lys Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 79

<211> 19

<212> PRT

<213> Mus musculus

<400> 79

Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala Pro
1 5 10 15
Val Lys Gly

<210> 80

<211> 17

<212> PRT

<213> Mus musculus

<400> 80

Val Ile Trp Asn Asp Gly Arg Ser Lys Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 81
<211> 17
<212> PRT
<213> Mus musculus

<400> 81
Val Ile Trp Tyr Asp Gly Ser Asn Lys Lys Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 82
<211> 17
<212> PRT
<213> Mus musculus

<400> 82
Val Ile Trp Tyr Asp Gly Ser Asn Lys Lys Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 83
<211> 19
<212> PRT
<213> Mus musculus

<400> 83
Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Ile Asp Tyr Ala Ala Pro
1 5 10 15
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